



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,260	11/15/1999	ARTHUR JOST	GEN-067	2733

43471 7590 01/09/2006

GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED
HOME SOLUTIONS BUSINESS OF MOTOROLA, INC.
101 TOURNAMENT DRIVE
HORSHAM, PA 19044

EXAMINER

KOENIG, ANDREW Y

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/440,260

Applicant(s)

JOST ET AL.

Examiner

Andrew Y. Koenig

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-11,13,14,17-20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-11,13,14,17-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/3/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 14 October 2005 have been fully considered but they are not persuasive.

The applicant argues that Caporizzo is related to a process for accumulating bit error data and not related to a process for registering a set-top terminal with the system controller. Further, the applicant argues that Corrigan does not make up for this deficiency in Caporizzo in that while Corrigan is a process of initializing a subscriber (Corrigan: col. 7, ll. 5-16), the process is initiated by the control unit. The applicant argues that the set top terminal and not the system controller initiates the process of the presently claimed invention. The examiner disagrees; Corrigan teaches the control unit (110) (claimed system controller) transmitting operation parameters on the system broadcast channel, wherein the system broadcast channel is used to broadcast system information to the subscriber units (130) (claimed set top terminals). However, the control unit is merely transmitting information and does not initiate the process, further, Corrigan teaches the subscriber sending information to the control unit such as configuration information (col. 5, ll. 9-27), which equates to a registration message.

The background discussion of Corrigan addresses the drawback of existing systems, which typically (e.g. but not always) requires an operator to configure the set top box at the customer location (col. 1, ll. 28-35). Accordingly, it is the purpose of the invention to design a flexible system that can be efficiently managed that allows for remote configuration and reorganization of services (col. 1, ll. 36-40). Further, Corrigan

Art Unit: 2611

discloses in the detailed description that "there is no need to configure the subscriber unit before installation" (col. 3, ll. 6-10), consequently there is no need to provide advanced notice to operators of said system.

The applicant argues that Caporizzo and Corrigan are directed to addressing different problems and therefore would not be combinable by one of ordinary skill in the art. The examiner disagrees in the addressing the same problem is not the only grounds for making a combination. In this case, Caporizzo and Corrigan are analogous in that they are in the same field of endeavor in this case, communication within a cable television network (related art, and would be readily recognized by one of ordinary skill in the art.).

Regarding claims 10 and 19, the applicant argues that a cable upstream plant is not the same thing as a piece of the PSTN. Whereas this may be true, claims 10 and 19 recite, "wherein each of said upstream plants comprise a telephone line over which said set top terminal sends said registration request to said controller," which does not preclude the upstream transmission being the PSTN providing the PSTN is used for upstream transmissions, the PSTN comprises a telephone which set top terminal sends said registration request to said controller. The combination of Caporizzo and Corrigan teaches these limitations by sending data through the PSTN.

Regarding claim 25, the applicant argues that Caporizzo is not concerned which how a set top terminal gets into the network. Whereas, this may be true, one of ordinary skill in the art would readily recognize different means of getting set top terminals into the network as evidence from the non-patent literature.

The examiner notes that a registration request is given the broadest reasonable interpretation in the art, which is a request to register. Whereas it is recognized that Corrigan does not explicitly disclose a "registration request," Corrigan teaches a control unit (110) of the subscriber unit (130) that sends subscriber information in a message including information on how the unit is configured, serial number, what cables are attached, and any other information the can unit can utilize to manage the communication system more efficiently (col. 5, ll. 9-27), which equates to a request to register in that the information permits the communication system to configure the device to optimally exist in the network. Consequently, Corrigan does teach a registration message, given the broadest reasonable interpretation in the art.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7-13, 16-24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo in view of U.S. Patent 6,202,088 to Corrigan et al.

Regarding claims 1, 11, and 20, Caporizzo teaches a cable television system which assesses the noise in the channels and notifies the headend of problems

(abstract). Caporizzo teaches a headend (claimed system controller), a population of terminals, and a plurality of upstream and downstream plants (fig. 1). Furthermore, the system of Caporizzo can locate set top terminals within a system by maintaining a system topology of devices (col. 6, ll. 4-13). Caporizzo teaches sending a message containing bit error rate (BER) information to the headend (col. 5, ll. 37-39), which reads on sending a first message to the system controller from a set top terminal.

Furthermore, by using the CATV network topology, the system can determine the upstream plant and the downstream plant associated with the terminal (col. 6, ll. 4-13). The examiner notes that the identification is 217784, where 2 is the trunk number, 1 is the line extender and 7784 is the set top terminal. Accordingly, the location of the set top terminal within the system comprises an identification of the upstream and downstream plants.

Further, Caporizzo is silent on a terminal transmitting data without a request message being first sent from the system controller. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 5, ll. 4-11, col. 5, ll. 37-48, col. 7, ll. 5-16, see also figure 11) (claimed registration request), wherein the new subscriber (ergo terminal) transmits a message without a request message being first sent from the system controller, in that the data from the controller is data concerning communication parameters and not a request. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by transmitting a message to the headend during initialization as taught by Corrigan in order to identify the user device at the headend and determine the appropriate services

Art Unit: 2611

thereby efficiently using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Further regarding claim 11, Caporizzo is silent on a location of which terminal has not been previously obtained by the system controller. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 7, ll. 5-16, see also figure 11), wherein the new subscriber (e.g. terminal) has not communicated with the system controller previously by the system controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by identifying the location of terminal that has not been previously obtained by the system controller as taught by Corrigan in order to identify the user device at the headend and determine the appropriate services thereby efficiently using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Further regarding claim 20, Caporizzo is silent on wherein a location of a set top within the system was previously unknown. Corrigan teaches registering a new subscriber unit to the control unit (110) (col. 2, ll. 39-42, col. 7, ll. 5-16, see also figure 11), wherein the location within the system was previously unknown. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by on locating a device wherein a location of the device within the system was previously unknown as taught by Corrigan in order to identify the user device at the headend and determine the appropriate services thereby efficiently

using resources (Corrigan: col. 1, ll. 7-15) and enabling the system to be managed more efficiently without disruptions of service (Corrigan: col. 1, ll. 36-40).

Regarding claim 3, Caporizzo teaches authorizing access to specific services and channels (col. 3, ll. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches, "assigning attributes for said set top terminal based on said location of said set top terminal" as claimed. However, Caporizzo is silent on one or more different attributes assigned to terminals in different locations. Corrigan teaches plural subscriber units being assigned to groups based on geographic location (col. 3, ll. 41-57), wherein the control unit (110) sends operations parameters for the subscriber unit (130), such as frequency bandwidth parameters, security identification, system channel, and protocol parameters (col. 4, ll. 31-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by having one or more different attributes assigned to terminals in different locations as taught by Corrigan in order to provide a plurality of services to users in different locations, thereby enabling the system to remotely configure subscriber units for reducing costs (Corrigan: col. 3, ll. 4-17).

Regarding claims 13, and 22, Caporizzo teaches authorizing access to specific services and channels (col. 3, ll. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches,

“assigning attributes for said set top terminal based on said location of said set top terminal” as claimed.

Regarding claims 7 and 16, Caporizzo teaches a demand from the set top terminal (col. 5, ll. 4-11), which reads on a set top terminal transmitting a message without receiving a request message from the controller.

Regarding claims 8 and 17, Caporizzo is teaches a subscriber demand initiating the data accumulation procedure, which in turn transmits the first message (col. 5, ll. 5-8).

Regarding claims 9 and 18, Caporizzo teaches identifying a trunk and line extender along with the set top terminal in order to identify the a group of malfunctioning devices (col. 6, ll. 5-13).

Regarding claims 10 and 19, Caporizzo teaches using a phone line to send the information the headend (claimed controller) (col. 5, ll. 43-48). By completing this action, the system of Caporizzo clearly must call use a telephone network that in turn reads on the claimed upstream plant.

Regarding claims 23 and 26, Caporizzo teaches a set top terminal demanding when the terminal has been added to the system, but is silent on performing an action once connected to the network. Corrigan teaches that the subscriber unit (130) scans and locates the system broadcast channel containing operation parameters (col. 7, ll. 5-16), and sending information to the control unit (110) (col. 5, ll. 9-27). Therefore, it would have been obvious to one of ordinary skill in the art to modify Caporizzo by perform an action once connected to the network as taught by Corrigan in order to

identify the device to the network without prior notice to the operator thereby enabling the system to efficiently add devices to the network and configure the network.

Regarding claim 24, Caporizzo teaches providing physical and logical topology information for the system based on the location information of the terminal (col. 6, 4-13).

Regarding claim 27, the combination of Caporizzo and Corrigan teaches the headend receiving a signal from a terminal and determining the upstream and downstream plants associated with the terminal (col. 5, ll. 37-39) and Caporizzo teaches a downstream plant associated with the upstream plant (col. 6, ll. 4-13).

4. Claims 4, 5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to Corrigan et al. in view of U.S. Patent 6,463,588 to Jenkins et al. and U.S. Patent 6,425,132 to Chappell.

Regarding claims 4 and 14, Caporizzo teaches associating attributes to the set top terminals, but is silent on associating attributes with each upstream and downstream plant. Jenkins teaches associating a status for end user devices in the downstream data path (col. 2, ll. 22-37, col. 2-3, ll. 56-6). In the upstream direction, Chappell teaches identifying a node, with a node identifier (col. 5-6, ll. 65-1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes with both the downstream and upstream plants as taught by Jenkins and Chappell in order to analyze the network and improve the efficiency of the system.

Regarding claim 5, Caporizzo is silent on associating attributes for the terminal based on the upstream path. Official Notice is taken that associating attributes for the terminal based on the upstream path is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes based on the upstream path in order to adjust the power, timing and other transmission characteristics for the set top terminal thereby transmitting data more efficiently.

5. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to Corrigan et al. in view of U.S. Patent 5,563,883 to Cheng.

Regarding claims 6 and 15, Caporizzo teaches polling from both the headend or the set top terminal either simultaneously or to addressed terminals (col. 5, ll. 4-11). By polling a particular set top terminal, the terminal clearly has a location. However, Caporizzo is silent on teaching selecting terminals to minimize collisions. Cheng teaches grouping terminals in order to minimize collisions (col. 11, ll. 9-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by grouping terminals to minimize collisions as taught by Cheng in order to provide a more reliable upstream data path.

6. Claims 25, 28-30, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,202,088 to

Corrigan et al. in view of "All-format decoders and set-top boxes" to Henderson (hereinafter Henderson).

Regarding claim 25, Caporizzo is silent on purchasing a set top terminal. Henderson teaches purchasing a set top terminal (pg. 4, para. 1), which are clearly purchased at a retail outlet, given the broadest reasonable interpretation in the art of a commercial market for goods selling retail directed towards consumers in that consumers are able to purchase the receivers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo to purchase a set top terminal through a retail outlet as taught by Henderson in order to enable a user to integrate a device into the network thereby gaining functionality and services available on the network.

Regarding claim 28, the limitations of claim 28 have been addressed in the discussion of claims 1, 25, and 26. Claim 28 introduces the limitation of installing the terminal. Official Notice is taken that installing a terminal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by installing a terminal in order to enable the user to use their devices without a service person.

Regarding claims 29, 30, and 34-36, the limitations of claims 29 and 30 have been addressed in the discussion of claims 2, 3, 7-9, respectively.

7. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo, U.S. Patent 6,202,088 to Corrigan et al., and

"All-format decoders and set-top boxes" to Henderson (hereinafter Henderson) in view of U.S. Patent 6,463,588 to Jenkins et al. and U.S. Patent 6,425,132 to Chappell.

Regarding claim 31 Caporizzo teaches associating attributes to the set top terminals, but is silent on associating attributes with each upstream and downstream plant. Jenkins teaches associating a status for end user devices in the downstream data path (col. 2, ll. 22-37, col. 2-3, ll. 56-6). In the upstream direction, Chappell teaches identifying a node, with a node identifier (col. 5-6, ll. 65-1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes with both the downstream and upstream plants as taught by Jenkins and Chappell in order to analyze the network and improve the efficiency of the system.

Regarding claim 32, Caporizzo is silent on associating attributes for the terminal based on the upstream path. Official Notice is taken that associating attributes for the terminal based on the upstream path is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes based on the upstream path in order to adjust the power, timing and other transmission characteristics for the set top terminal thereby transmitting data more efficiently.

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo, U.S. Patent 6,202,088 to Corrigan et al., and "All-format

decoders and set-top boxes" to Henderson (hereinafter Henderson) in view of U.S. Patent 5,563,883 to Cheng.

Regarding claim 33, Caporizzo teaches polling from both the headend or the set top terminal either simultaneously or to addressed terminals (col. 5, ll. 4-11). By polling a particular set top terminal, the terminal clearly has a location. However, Caporizzo is silent on teaching selecting terminals to minimize collisions. Cheng teaches grouping terminals in order to minimize collisions (col. 11, ll. 9-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by grouping terminals to minimize collisions as taught by Cheng in order to provide a more reliable upstream data path.

9. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,202,088 to Corrigan et al. in view of U.S. Patent 5,574,495 to Caporizzo.

Regarding claim 41, Corrigan teaches transmitting the signal upstream via the cable system, but is silent on transmitting over a telephone line. Caporizzo teaches using a phone line to send the information the headend (claimed controller) (col. 5, ll. 43-48), wherein the message of Caporizzo contains the downstream channel information (col. 5, ll. 37-39, col. 6, ll. 4-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrigan by transmitting over a telephone line and identifying the downstream channel (e.g. transceiver, extender, etc.) information as taught by Caporizzo in order to indicate to the user any problem areas within the network.

10. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,202,088 to Corrigan et al.

Regarding claim 42, Corrigan is silent on transmitting the request over different frequencies until the system controller responds. Official Notice is taken that using different frequencies until the system controller responds is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrigan by using different frequencies until the system controller responds in order to reduce the chances of a frequency collision in the network, thereby increasing the devices ability to communicate with the other device.

Regarding claim 43, Corrigan is silent on transmitting the request at a different power levels until the system controller responds. Official Notice is taken that using different power levels until the system controller responds is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrigan by changing power levels in order to compensate for the length of the signal path on the network thereby compensating for different path lengths of signals.

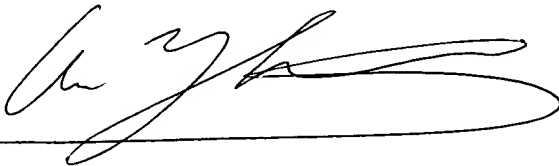
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ayk

A handwritten signature in black ink, appearing to be 'ayk', written over a horizontal line.